

README.TXT

PLEASE READ through the end of this document for UPDATE information that significantly affect the operation of these programs!!!

NOTICE TO INTERNATIONAL USERS:

EVERSERIES programs will work only when period "." is used as the decimal separator. If your Windows Regional Settings is set to use comma "," as the decimal separator, common in some European countries, these programs will not work properly.

INSTALLATION:

To install the EVERSERS programs, please

1. download the EVERSERS.ZIP file from this web site to a temporary directory.
2. unzip the file EVERSERS_SETUP.EXE from this zip file to a temporary directory.
3. run the EVERSERS_SETUP.EXE and follow the on-screen instructions.

IMPORTANT: These programs are updated on a regular basis. Please send your e-mail address to sivanen@wsdot.wa.gov to be included in the mailing list.

Everseries Pavement Analysis Programs contains the following three independent modules:

1. Evercalc 5.0 - A FWD Pavement Moduli Backcalculation Program

This program is useful in backcalculating the pavement layer moduli from Falling Weight Deflectometer measurements. The program uses WESLEA layered elastic analysis program for forward analysis and a modified Augmented Gauss-Newton algorithm for optimization. This program can handle upto 5 layers, 10 sensors, and 12 drops per station. Options for estimating apparent depth to stiff layer and temperature corrections for AC moduli are included.

2. Everstress 5.0 - A Layered Elastic Analysis Program

This program is useful in determining stresses, strain, and deflections in a layered elastic system (semi-infinite) under circular surface loads. This program can handle upto 5 layers, 20 loads, and 50 evaluation points. It can also take into account any stress dependent stiffness characteristics.

3. Everpave 5.0 - A Flexible Pavement Overlay Design Program

This program is useful in determining the overlay thickness that would be required to bring the damage levels to an acceptable level under a design traffic condition. This can handle upto 5 layers (including the overlay) and account for seasonal variation of traffic and stiffnesses.

Requirements:

These programs require a 386 or higher computer and Windows 95/NT or higher.

Installation Notes:

Before Installing: If you have an older version of any of these

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programs you might want to remove all those files before installing this new update (make sure to move your data files, output files etc. to a different directory if you are going to be issuing a "DEL C:\EVERCALC*. *"). This will eliminate some of the unnecessary files taking your hard disk space.

Updates/Bug fixes:

Last Update: March 20, 2001

1. FWD Conversion modified to accept Dynatest Edition 25. Now EVERCALC FWD Conversion utility can process Dyantest Edition 20 and 25 format FWD Files.

Update: August 09, 2000

1. FWD Conversion in EVERCALC fixed to handle when stationing is in Yards.

Update: September 27, 1999

1. Maximum number of drops per station increased to 16
2. FWD Conversion utility now extracts "Asphalt Temperature" when "Direct Method" option is selected in the General Data file and "PAVEMENT Surface Temp" and "AIR Temperature" when "Southgate Method" option is selected in the General Data file from the FWD file.

Update: March 31, 1999

1. Help files updated to be consistent with Volume III of WSDOT Pavement Guide.

Update: August 24, 1997

1. In EVERCALC, when Internal is selected for the seed moduli option (3 or less number of layers) with the subgrade modulus fixed, the seed moduli were calculated incorrectly. This has been fixed.

Update: January 29, 1997

1. Everstress now includes interface slip
2. Significant changes have been made to all three programs above. Please contact Silva or Linda Pierce for details.

Update: April 3, 1996

1. Standard Temperature can now be specified in EVERCALC and EVERPAVE. This is used in adjusting the AC moduli.
2. The Fatigue and Rutting equation coefficients can now be specified in EVERPAVE. Please see the help file for more detail.
3. Loading rate adjustment for AC moduli has been taken out in EVERPAVE.

Update: March 4, 1996

1. IMPORTANT - Stresses calculated in EVERCALC do not include overburden stresses. K1 and K2, however, are calculated using total (overburden stresses added to stresses due to FWD Load) stresses.
2. During backcalculation, EVERCALC called WESLEA program with "Displacement calculation" alone and this resulted in less accurate results at the furthest sensors. Now it has been fixed - EVERCALC

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always call WESLEA with "Stress, Strain, and Displacement calculation".

Update: November 29, 1995

1. IMPORTANT - Sign convention has been changed in the EVERCALC program. In the previous versions, compression was considered positive. It has been changed to TENSION POSITIVE in this update.
2. Maximum number of drops at a station has been increased from 8 to 12. This change however affects the structure of the deflection and output files. YOU WILL NOT BE ABLE TO USE OLD DEFLECTION OR OUTPUT FILES. You will have to rerun the program.

Update: August 20, 1995

1. Fixes an error in Everpave when using five layers.
2. Uses a new installation program and has an UNINSTAL program.

Update: February 15, 1995

1. Fixes a metric conversion error in Evercalc and Everpave.
2. All three programs now have a scrollable output preview with zooming.

Compliments/Complaints/Comments

Your suggestions on improving this program or notification of any bugs that you discover are very much appreciated.

Disclaimer

The Washington State Department of Transportation does not warrant anything concerning any of the programs or files which make up the "Everseries Pavement Analysis Programs". We accept no responsibility for any loss or damage of any kind which results from the use, or the purported use of the "Everseries Pavement Analysis Programs", or any files in the package, for any purpose whatsoever.